Bab 10 Kecerunan Garis Lurus
Gradient of a Straight Line

Bahagian A

1 Hitungkan kecerunan bagi garis lurus yang menyambungkan $A(2, -3)$ dan $B(6, 9)$.
Calculate the gradient of the straight line which joins A(2, –3) and B(6, 9).

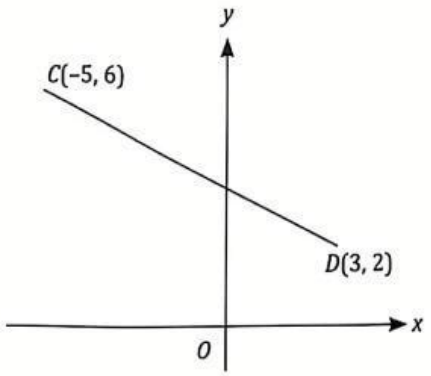
A $\frac{1}{3}$ **C** 2

B $\frac{3}{4}$ **D** 3

2 Cari jarak mencancang dan jarak mengufuk bagi $P(-2, 1)$ dan $Q(8, 7)$.
Find the vertical distance and horizontal distance of P(–2, 1) and Q(8, 7).

	Jarak mencancang (unit) *Vertical distance (unit)*	**Jarak mengufuk (unit)** *Horizontal distance (unit)*
A	4	10
B	6	6
C	6	10
D	10	6

3 Graf berikut menunjukkan koordinat C dan D.
The following graph shows the coordinates of C and D.

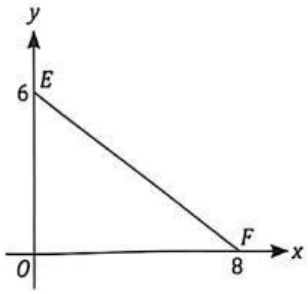


Hitungkan kecerunan bagi garis lurus CD.
Calculate the gradient of the straight line CD.

A –4 **C** $-\frac{1}{4}$

B $-\frac{1}{2}$ **D** $\frac{1}{2}$

4 Graf berikut menunjukkan E dan F masing-masing ialah pintasan-y dan pintasan-x.
The following graph shows E and F are y-intercept and x-intercept respectively.

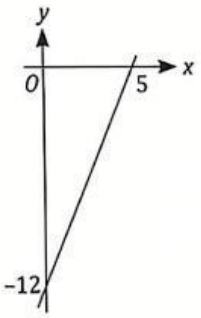


Cari kecerunan bagi EF.
Find the gradient of EF.

A $-\frac{4}{3}$ **C** $\frac{3}{4}$

B $-\frac{3}{4}$ **D** $\frac{4}{3}$

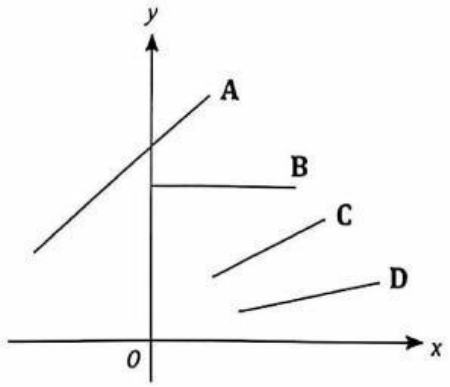
5 Graf berikut menunjukkan satu garis lurus.
The following graph shows a straight line.



Antara berikut, yang manakah betul?
Which of the following is correct?

	Pintasan-x *x-intercept*	**Pintasan-y** *y-intercept*
A	–13	5
B	–12	5
C	5	–12
D	5	–13

6 Graf berikut menunjukkan empat garis lurus.
The following graph shows four straight lines.



Antara garis **A**, **B**, **C** dan **D**, garis yang manakah mempunyai kecerunan yang paling tinggi?
*Among lines **A**, **B**, **C** and **D**, which line has the highest gradient?*

7 Hitung kecerunan garis lurus yang melalui $G(-6, 4)$ dan $H(2, -4)$.
Calculate the gradient of the straight line that passes through G(–6, 4) and H(2, –4).

A 4 **C** 0
B 2 **D** –1

8 Diberi pintasan-x dan pintasan-y suatu garis lurus masing-masing ialah –5 dan 10. Cari kecerunan garis lurus itu.
Given the x-intercept and y-intercept of a straight line are –5 and 10 respectively. Find the gradient of the straight line.

A –2 **C** $\frac{1}{2}$
B $-\frac{1}{2}$ **D** 2

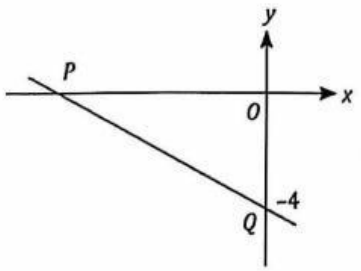
9 KBAT Diberi kecerunan suatu garis lurus yang melalui $M(h, 3)$ dan $N(-2, -9)$ ialah 2, hitung nilai h.
Given the gradient of a straight line which passes through M(h, 3) and N(–2, –9) is 2, calculate the value of h.

A –4 **C** 4
B –2 **D** 8

10 Jika kecerunan suatu garis lurus ialah 3 dan pintasan-x ialah 6, cari pintasan-y garis lurus itu.
If the gradient of a straight line is 3 and the x-intercept is 6, find the y-intercept of the straight line.

A –18 **C** 2
B –2 **D** 18

11 KBAT Rajah berikut menunjukkan suatu garis lurus yang dilukis pada satah Cartes.
The following diagram shows a straight line drawn on a Cartesian plane.



Jika jarak mengufuk bagi P dari paksi-y ialah 8 unit, hitung kecerunan PQ.
If the horizontal distance of P from y-axis is 8 units, find the gradient of PQ.

A –2 **C** $\frac{1}{2}$
B $-\frac{1}{2}$ **D** 2

12 KBAT Diberi kecerunan suatu garis lurus yang melalui $P(-6, k)$ dan $Q(-2, 7)$ ialah –2, cari nilai k.
Given the gradient of a straight line that passes through P(–6, k) and Q(–2, 7) is –2, find the value of k.

A 1
B 10
C 13
D 15

13 Suatu garis lurus yang melalui $P(0, -6)$ mempunyai kecerunan $-\frac{2}{3}$. Cari pintasan-x bagi garis lurus itu.
A straight line which passes through P(0, –6) has a gradient of $-\frac{2}{3}$. Find the x-intercept of the straight line.

A –4
B –8
C –9
D –12

14 Suatu garis lurus mempunyai kecerunan $\frac{3}{4}$ melalui $R(12, 0)$. Cari pintasan-y bagi garis lurus itu.
A straight line has a gradient of $\frac{3}{4}$ passes through R(12, 0). Find the y-intercept of the straight line.

A –16
B –9
C 9
D 16

Bahagian B

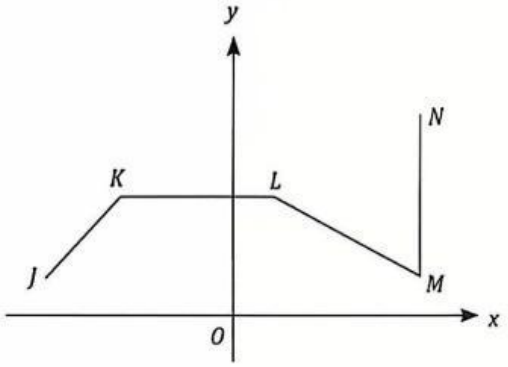
1 Lengkapkan jadual berikut.
Complete the following table.

[4 markah/ *marks*]

Jawapan/ *Answer*:

Pintasan-*x* ***x*-intercept**	**Pintasan-*y*** ***y*-intercept**	**Kecerunan** ***Gradient***
4	−10	(*a*)
−12	3	(*b*)
8	(*c*)	$-\frac{3}{4}$
(*d*)	−15	$\frac{5}{8}$

2 Rajah berikut menunjukkan empat garis lurus yang dilukis pada satah Cartes.
The following diagram shows four straight lines drawn on a Cartesian plane.



Nyatakan nilai kecerunan bagi setiap garis lurus berikut dengan perkataan yang diberi di bawah.
State the value of gradient for each of the following straight lines with the words given below.

Positif *Positive*	Sifar *Zero*	Negatif *Negative*	Tidak tertakrif *Undefined*

[4 markah/ *marks*]

Jawapan/ *Answer*:

(*a*) *JK*: _____

(*b*) *KL*: _____

(*c*) *LM*: _____

(*d*) *MN*: _____